

REMARKS

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This amendment responds to the non-final Office Action which was mailed on June 18, 2007. In the claims, Claims 21-28 have been canceled, and new Claims 29-38 substituted therefor. Claim 1-20 were previously canceled. It is respectfully submitted that Claims 29-38 are in condition for allowance. Request a favorable reconsideration of this application in light of the amendment and the remarks set forth below which constitute a full and complete response to the Office Action.

Claims 21-28 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over the Japan 409117735 (hereinafter referred to as Japan). Claims 21-28 have now been canceled and new Claims 29-38 substituted therefore. It is respectfully submitted that these claims are in condition for allowance and the rejections should be withdrawn.

More particularly, §102(b) anticipation requires that the single prior art reference cited disclose each and every element and limitation of the claimed invention. With respect to independent Claim 29, Japan clearly does not disclose "activating a charge disposed within the reactor to open the container," but rather describes the use of a water jet to punch and cut a shell containing chemicals. In addition, Japan does not describe "injecting an aqueous hydrogen peroxide solution into the reaction chamber, wherein said solution comprises about 35 percent hydrogen peroxide and 65 percent water, and further includes one or more bases selected from the group consisting of calcium peroxide, magnesium peroxide, sodium percarbonate, and mixtures thereof," but rather merely describes using water or alkali water to treat the chemicals contained in the shells. In like manner, Japan does not teach these same limitations as recited in independent Claim 36. In addition, Japan teaches the use of

critical water operating conditions, i.e., a temperature of about 700 °F and pressure of about 3,200 psig whereas applicant's claims recite a temperature of between 1,000 and 1,100 °F and pressure between 3,900 and 4,200 psig to create not just critical but supercritical operating conditions. While Japan mentions the possible use supercritical conditions, it actually discourages or teaches away from use of supercritical conditions because of the severe, corrosive conditions and by products such as hydrochloric acid and chlorine gas. Finally, fragment suppression is also not described in Japan. Therefore, it is respectfully submitted that Japan does not disclose every limitation in applicant's claimed invention and the rejection for anticipation should be withdrawn.

In the alternative, Claims 21-28 were rejected under 35 U.S.C. §103(a) as obvious over Japan. In order to establish obviousness, the combined prior art cited must disclose every element or limitation of the claimed invention, and provide some reason (teaching, motivation, or suggestion) for making the claimed combination. Here only the prior art reference of Japan has been used. Of course, Claims 21-28 have been canceled and replaced by new Claims 29-38. As described in the foregoing, Japan does not teach each and every element or limitation in new independent Claims 29 and 36. In other words, there is no teaching of injecting the high concentration aqueous hydrogen peroxide solution including the solid oxidant bases such as sodium percarbonate, nor does it teach activating a charge to open the container. In addition, fragment suppression is also not described in Japan. Finally, there is no motivation or suggestion in Japan to use these steps. In fact, only water jets or alkali water jets are described for opening the containers and treating the contents in critical conditions, not the use of shaped charges to open explosive chemical munitions or the use of concentrated hydrogen peroxide solution in supercritical water oxidation conditions. It is

also important to note that Japan teaches the use of "critical" conditions for the hydrothermal action of water, and specifically teaches 705 °F and about 3,200 psig conditions, whereas applicant uses supercritical water oxidation conditions of greater than 1,000 °F and between 3,900 and 4,200 psig. In addition, as discussed in the foregoing, at line 30 of the Detailed Description Japan actually discourages use of supercritical water oxidation conditions because "operating condition is severe and a hydrochloric acid and chlorine gas can occur." Applicants have developed a method and system which can safely use supercritical water oxidation conditions by using high concentration hydrogen peroxide solution eliminating the need for gaseous oxygen, and adding a base such as sodium percarbonate to control and reduce corrosion by acids. Therefore, the rejection of applicant's claimed invention as obvious over Japan should also be withdrawn.

Claims 21-28 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Tschritter (U.S. Pat. No. 6,881,383) in view of Japan. Tschritter teaches an explosive destruction system comprising a gas-tight explosive containment vessel, a fragment suppression system, and shaped charge means for accessing the interior of a munition. Also provided are means for treatment and neutralization of the munition's chemical fill. However, it is conceded that Tschritter does not teach heating the chemical or biological materials with water and an oxidant to a temperature and pressure exceeding the critical temperature and critical pressure of water to initiate a supercritical water oxidation process. Japan has been relied on to teach the heating of the chemical or biological material with water and an oxidant initiate supercritical oxidation process. Therefore, it has been asserted that it would have been obvious to include the oxidation process steps of Japan in a device of Tschritter, with the motivation being to prevent secondary environmental pollution.

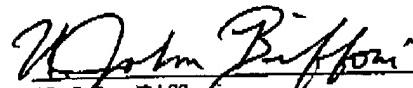
In light of the amendment and submission of new Claims 29-38, it is respectfully submitted that the combined prior art of Tschritter and Japan do not teach all of the limitations of the claimed invention and that the rejection should therefore be withdrawn. More particularly, neither Tschritter nor Japan teach the use of a concentrated aqueous hydrogen peroxide solution including one or more solid oxidant bases selected from the group consisting of calcium peroxide, magnesium peroxide, sodium percarbonate, in supercritical water oxidation conditions as is recited in applicant's independent Claims 29 and 36. In fact, only the Japan reference mentions a supercritical water oxidation process, but it does so by discouraging its use or teaching away because of the severe operating conditions. In addition, Japan only describes using water or alkali water, more specifically, water and sodium hydroxide solution. Hydrothermal reaction is then carried out using catalyst, oxygen or air. There is no teaching or suggestion of using high concentration aqueous hydrogen peroxide solution including solid oxidant bases in supercritical water conditions as recited in applicant's claims.

Thus, independent Claims 29 and 36 contain limitations not taught or suggested by the prior art cited, therefore a prima facie case of obviousness can not be established. Of course, all other claims are either directly or indirectly dependent from these claims and are further limiting thereto, therefore these claims should also be in condition for allowance.

In summary, Claims 21-28 have been canceled and new Claims 29-38 substituted therefor. Based on the foregoing amendments and remarks, it is respectfully submitted that these claims are in condition for allowance. Early reconsideration and allowance of the claimed subject matter is earnestly solicited.

Respectfully submitted,

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DATE



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